PATENT ABSTRACTS OF JAPAN

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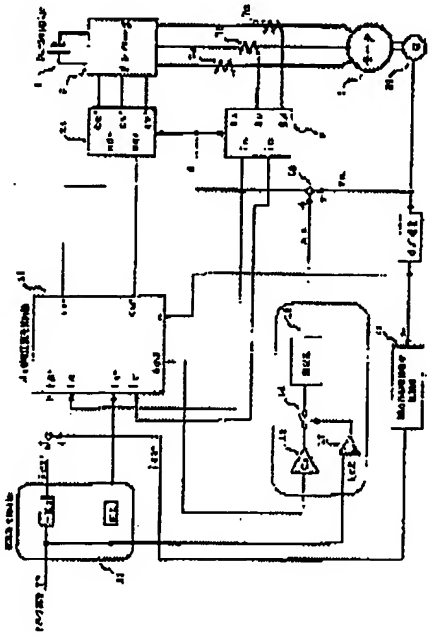
(54) CONTROL DEVICE OF SYNCHRONOUS MOTOR

(57)Abstract:
PROBLEM TO BE SOLVED: To correct the deviation between a magnetic pole position and the detection position of an encoder and to control an accurate current phase, by adding a magnetic pole position correction value to a rotor rotary position detection value being detected by the encoder that is mounted to a rotor shaft, and outputting a commutation electrical angle command value.
SOLUTION: When a torque command T* is large, an integrator 16 retains its output since a switch 18 is turned off, thus continuously outputting an accurate magnetic pole position correction value being obtained while the torque command T* is small. Using a magnetic pole position correction value Δθthus obtained, an adder 19 adds Δθ to a rotor rotary angle O m detected by an encoder 20 that is mounted to a motor shaft to detect a commutation electrical angle θ. The angle does not include any magnetic pole position error due to the mounting error or the like of the encoder and is a magnetic pole position that accurately matches the actual magnetic flux position in the motor, thus accurately controlling the generation torque of the motor.



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